

EXHIBIT A

1. A method of converting glycerol to 1,3-propanediol in a thermophilic organism, the method comprising:
 - providing a thermophilic organism that ferments glycerol to 1,3-propanediol; and
 - culturing the thermophilic organism under conditions such that 1,3-propanediol is produced.
2. The method of Claim 1, further comprising the step of collecting 1,3-propanediol produced by the thermophilic organism.
3. The method of Claim 2, further comprising the step of polymerizing the 1,3-propanediol into a polymer.
4. The method of Claim 3, wherein the polymer is poly(1,3-propylene terephthalate) (PPT).
46. (New) The method of Claim 1, wherein the thermophilic organism is cultured under anaerobic conditions.
47. (New) The method of Claim 1, wherein the thermophilic organism is cultured under nitrogen.
48. (New) The method of Claim 1, wherein the thermophilic organism is cultured under argon.
49. (New) The method of Claim 1, wherein the thermophilic organism is cultured under a mixture of nitrogen and carbon dioxide in a ratio of about 80 to about 20.
50. (New) The method of Claim 1, wherein the thermophilic organism is cultured in the presence of an oxygen scavenger.

51. (New) The method of Claim 1, wherein the thermophilic organism is cultured in an anaerobic chamber.

52. (New) The method of Claim 1, wherein the thermophilic organism is cultured under microaerobic conditions.

53. (New) The method of Claim 2, wherein the collected 1,3-propanediol is further purified.

54. (New) The method of Claim 1, wherein the genome of the thermophilic organism is at least 95% identical to the genome of the organism deposited as ATCC designation PTA-584.

55. (New) The method of Claim 1, wherein the genome of the thermophilic organism is at least 99% identical to the genome of the organism deposited as ATCC designation PTA-584.

56. (New) The method of Claim 1, wherein the 16S rDNA sequence of the thermophilic organism is at least 95% identical to the 16S rDNA of the organism deposited as ATCC designation PTA-584.

57. (New) The method of Claim 1, wherein the 16S rDNA sequence of the thermophilic organism is at least 99% identical to the 16S rDNA of the organism deposited as ATCC designation PTA-584.

58. (New) The method of Claim 1, wherein the thermophilic organism is adsorbed on a solid support.

59. (New) The method of Claim 1, wherein the thermophilic organism is cultured under aerobic conditions.